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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|-----------------------------------|------------------|
| 10/723,743 | 11/26/2003 | Hans-Dieter Gaul | DT-6688 | 8970 |
| 30377 | 7590 | 10/18/2005 | | |
| DAVID TOREN, ESQ. ABELMAN FRAYNE & SCHWAB 666 THIRD AVENUE NEW YORK, NY 10017-5621 | | | EXAMINER GAY, JENNIFER HAWKINS | |
| | | | ART UNIT 3672 | PAPER NUMBER |

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/723,743

Applicant(s)

GAUL, HANS-DIETER

Examiner

Jennifer H. Gay

Art Unit

3672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>5/3/04</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Information Disclosure Statement

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 10. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The abstract of the disclosure is objected to because the abstract has been constructed as a single run-on sentence. Correction is required. See MPEP § 608.01(b).

4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

5. The disclosure is objected to because of the following informalities: in the last line of page 6 "outer thread 12" should be changed to --outer thread 10--.

Appropriate correction is required.

Claim Objections

6. Claims 2, 9, and 11 are objected to because of the following informalities:

- Claim 2 recites "inner grooves of the splined profile (3)" but the splined profile is not depicted or described as having inner grooves. It is suggested that "inner" be deleted.
- Claim 9 is objected to because there is insufficient antecedent basis for "the tool-side axial stop surface".
- Claim 11, line 2 "and having" should be changed to --wherein the tool holder comprises-- as the current language does not associate the remainder of the recited features with the tool holder.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-6, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asak (US 4,860,838).

Regarding claim 1: Asak discloses a tool holder for a drill bit. The holder includes the following features:

- A bit-side stop surface **50**.
- An end-side splined profile **34** extending in a bit direction.

Asak discloses all of the limitations of the above claims except for the splined profile including an outer thread. However, it would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the splined profile of Asak to include outer threads as the examiner takes Official Notice that outer threads or protrusions are well known in the art to increase the frictional engagement between to objects thus increasing the strength of the connection.

Regarding claim 2: The tool holder includes at grooves on the splined profile that have an outer radial dimensions that is smaller than the axial extent of the grooves (Figure 9).

Regarding claims 3-5: The splined profile includes four equidistantly circumferentially spaced axial grooves of the same width.

Regarding claim 6: Asak discloses all of the limitations of the above claims except for the splined profile including six axial grooves. However, it would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have increased the number of grooves of the splined profile of Asak to six in order to have increased the contact between the splined profile and the corresponding recesses thus increasing the strength of the connection.

Regarding claims 8, 9: The tool holder includes an axial conical surface **48** that extends between the bit-side stop and a tool-side stop **56**.

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9. Claims 1-7, 10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Despres (US 6,341,925).

Regarding claim 1: Despres discloses a tool holder for a drill bit. The holder includes the following features:

- A bit-side stop surface **64**.
- An end-side splined profile **50** extending in a bit direction.

Despres discloses all of the limitations of the above claims except for the splined profile including an outer thread. However, it would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the splined profile of Despres to include outer threads as the examiner takes Official Notice that outer threads or protrusions are well known in the art to increase the frictional engagement between to objects thus increasing the strength of the connection.

Regarding claim 2: The tool holder includes at grooves on the splined profile that have an outer radial dimensions that is smaller than the axial extent of the grooves (Figure 1).

Regarding claims 3-5: The splined profile includes four equidistantly circumferentially spaced axial grooves of the same width.

Regarding claim 6: Despres discloses all of the limitations of the above claims except for the splined profile including six axial grooves. However, it would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have increased the number of grooves of the splined profile of Despres to six in order to have increased the contact between the splined profile and the corresponding recesses thus increasing the strength of the connection.

Regarding claim 7: The tool holder includes a tool-side stop surface **63** axially spaced from the bit-side stop and a sleeve **21** having inner threads and overlapping the tool-side stop.

Regarding claim 10: Despres discloses all of the limitations of the above claims except for a rubber ring between the sleeve and the tool-side stop surface. However, it would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have included a rubber ring between the tool-side stop and the

sleeve of Despres in order to have sealed the connection between the two elements thus preventing debris from damaging the operation of the tool.

Regarding claim 11: Despres discloses a tool assembly for core drilling. The assembly includes the following features:

- An annular core bit **22**.
- A tool holder that includes the following features:
 - A bit-side stop surface **64**.
 - An end-side splined profile **50** extending in a bit direction.
- An inner splined profile **42** on the bit for engagement with the splined profile.

Despres discloses all of the limitations of the above claims except for the splined profile including an outer thread. However, it would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the splined profile of Despres to include outer threads as the examiner takes Official Notice that outer threads or protrusions are well known in the art to increase the frictional engagement between to objects thus increasing the strength of the connection.

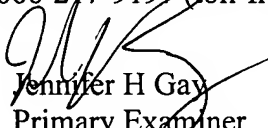
Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer H. Gay whose telephone number is (571) 272-7029. The examiner can normally be reached on Monday-Thursday, 6:30-4:00 and Friday, 6:30-1:00.

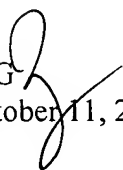
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on (571) 272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jennifer H Gay
Primary Examiner
Art Unit 3672



JHG
October 11, 2005